

$^{174}\text{Yb}(^3\text{He},\alpha)$  1971Bu01

| Type            | Author        | History<br>Citation | Literature Cutoff Date |
|-----------------|---------------|---------------------|------------------------|
| Full Evaluation | V. S. Shirley | NDS 75,377 (1995)   | 1-Oct-1993             |

$E(^3\text{He})=28$  MeV; 8 angles used; Yb metal targets enriched to 95.8% in  $^{174}\text{Yb}$ ; measured  $E(\text{level})$  (mag spect, FWHM=25 keV), angular distributions, differential cross sections.

 $^{173}\text{Yb}$  Levels

| $E(\text{level})^\dagger$ | $L^\ddagger$ | $S^\#$    | Comments                                                                                             |
|---------------------------|--------------|-----------|------------------------------------------------------------------------------------------------------|
| $\approx 1$               |              |           |                                                                                                      |
| 79 1                      | 3            | 0.65      | $E(\text{level})$ : adopted value (rounded) used for calibration of $(^3\text{He},\alpha)$ spectrum. |
| 176                       |              |           |                                                                                                      |
| 298                       |              |           |                                                                                                      |
| 407                       |              |           |                                                                                                      |
| $\approx 453$             |              |           |                                                                                                      |
| 481                       |              |           |                                                                                                      |
| $\approx 531$             |              |           |                                                                                                      |
| $\approx 564$             |              |           |                                                                                                      |
| 601 3                     | 6            | 1.39      |                                                                                                      |
| $\approx 650$             |              |           |                                                                                                      |
| $\approx 707?$            |              |           |                                                                                                      |
| 746                       |              |           |                                                                                                      |
| 873                       |              |           |                                                                                                      |
| $\approx 926?$            |              |           |                                                                                                      |
| 1120                      |              |           |                                                                                                      |
| 1166 3                    | 5            | 0.40      |                                                                                                      |
| 1223                      |              |           |                                                                                                      |
| 1309                      |              |           |                                                                                                      |
| 1355 3                    | 3            | 0.36      |                                                                                                      |
| $\approx 1438$            | 3            | 0.19      |                                                                                                      |
| $\approx 1468$            |              |           |                                                                                                      |
| $\approx 1532$            |              |           |                                                                                                      |
| 1579 3                    | 6            | 0.91      |                                                                                                      |
| $\approx 1625$            | 5            | 0.29      |                                                                                                      |
| $\approx 1662$            |              |           |                                                                                                      |
| $\approx 1707$            |              |           |                                                                                                      |
| $\approx 1759$            |              |           |                                                                                                      |
| 1812 3                    | 5,6          | 0.42,0.36 |                                                                                                      |
| 1855                      | 1,2          |           |                                                                                                      |
| $\approx 1877$            |              |           |                                                                                                      |
| 1979 3                    |              |           |                                                                                                      |
| $\approx 2130$            |              |           |                                                                                                      |

$^\dagger$  Values normalized to the strongly populated 79 level.  $\Delta E=3$  keV for intense peaks (assumed by evaluator to be those with  $d\sigma/d\Omega \geq 20$ ).

$^\ddagger$  Inferred from angular distributions and  $(^3\text{He},\alpha)/(d,t)$  cross-section ratios ((d,t) cross sections taken from 1966Bu16).

$^\#$  Relative spectroscopic factor (normalization factor of 25 used for the DWBA calculations).